

EBASE FUNDAMENTALS

**Data Entry Guide for EBASE User's
Outlining the type of information
To be entered on EBASE screens**



General Info Tab

Title Box

Line 1 - Route designator or Description
Line 2 - First Line of Title.
Line 3 - Second Line of Title (if applicable)
Line 4 - PS&E Job Number*

** Text must be entered on the 4th line for the title to appear on the reports. This number is assigned by the Region Plans Office.(the work order may be used here until the PS&E # has been assigned)*

Summary of Quantities Revisions button Use this button to add sheet numbers to the Summary of Quantities, and to add revision notes to the SQ for addendums.

Access button Use this button to grant access to the estimate enabling other users to make revisions

Duplicate / New Version button Use this button to create a new version of the estimate. (creating a new version is necessary to revise an estimate that has been locked) or to create a duplicate of the estimate with a different name

Contingency Percentage - Must contain a number – 4% is the standard entry. Contact Program management for a greater percentage requirement or Enter zero if not applicable.

Engineering Percentage - Must contain a number - See Page ## for the table of percentages. Enter zero if not applicable.

Work Order Number - Enter the complete L-Number (i.e. XL1234; 0L1234

Text Data Tab

The Text Data tab Provides three areas to enter Project Level descriptive remarks

Project Remarks

AGREEMENTS:
AGREEMENT GCA-4912 FOR \$9,000 WITH CITY

This screen is for entering special Project level remarks that you want to bring attention to. Any text entered here will be printed on the bottom of the Preliminary Estimate Summary Report.

Save

Proposal Description

I-90; EBASE TRAINING PCCP I/S REHAB, IN THE CITH OF SPOKANE AND SPOKANE COUNTY, VICINITY OF MP 291.92, A FEDERAL AID PROJECT,

Enter the Route, County, Mile Posts, Project Title and if it is a State or a Federal Project. Always end this paragraph with a comma. This text is inserted into the paragraph at the top of the Proposal report

DO NOT ENTER ANY ADDITIONAL DESCRIPTION, ONLY THE BOLDDED INFORMATION.

Type Of Work

THIS WORK SHALL CONSIST OF REMOVING ASPHALT CONCRETE PAVEMENT, PLACING PORTLAND CEMENT CONCRETE PAVEMENT, PAVEMENT MARKINGS, UPGRADE SIGNAL SYSTEM COMPONENTS, ADJUSTING INLETS AND OTHER WORK.

Save

Use this screen to enter a brief description of the Major items of work being performed. This text is limited to 4 lines, and will be printed at the top of the Preliminary Estimate Summary report

Funding Tab



Step 1 - Creating Funds

Fund Number	Double Click on Item For Fund Remarks/Agreement
5	
10	
20	

A Fund Number is simply a place holder to group Participants together under. Create your Fund numbers by clicking the ADD button and entering a sequence of numbers, 5, 10, 15; 2,4,6... You may use any sequence that makes sense to you.

If you would like to enter a special comment about any of the Funds you setup, Double click on the Fund Number and a window will be displayed for text entry. Any text entered here will be printed on the Fund Report.

Step 2 - Creating Participants

Participant Name	Federal Aid Project Number	Funding Indicator
STATE		State
GCA-4912		City
FEDERAL	IM-0906(211)	Federal Aid

- Add a line for each Participant that will be contributing funds toward the construction of the project. Each Participant must have a unique name.
- A Federal Aid Project Number must be entered for all federal participants

(e.g. if there are two separate Federal funding sources, do not call them both FEDERAL. Make each distinct, such as FEDERAL IM, FEDERAL NH.) There is a 17 place Character limit for these names

Step 3 - Defining Participant Grouping Under a Fund

Fund Number	Participant	Funding Sequence	Participation Percentage	Maximum Amount
5	FEDERAL	1	90.00%	
5	STATE	2	100.00%	
10	GCA-4912	1	100.00%	
20	STATE	1	100.00%	

- Add one Fund/Participant line at a time and complete before adding another.
- A Funding sequence must be entered to show who pays first, second etc. Each fund may have up to four participants.
- It is Ok for a participant contribute to more than one fund.
- A Participation Percentage must be entered for each - in decimal format.
- If a Maximum Amount is entered for a participant who has agreed to pay a set dollar amount, the Maximum amount will over ride any Participation Percentage that has been entered. In most cases a Max. Amount participant should be entered as a Funding Sequence of 1 [the Primary participant], with a Participation Percentage shown as 100%.
- Should it be necessary to remove the Max Amount either enter a zero, or delete and re-add the participant/fund match line.

Groups Tab

A separate Group will be necessary when:

- There is a change in the Program Number (PIN).
- A change in the Program or Sub-Program (P1, I2, etc.)
- A change in Funding (participants, rates, source of funding)
- Control Section break.
- A separate Group is required for Third Party Damages.

Group Number	County:	Control Section Number:	Fund Number:	Group Description:	Program:	Program Item Number:	State Route Number:	Tax Rate:	Federal Work Type Code:
1	SPOKANE	320103	5	SULLIVAN I/S PCCP REHABILITATION	P1	609049Z	090	8.70%	J000
2									
3									
4									
5									
6									
7									

Move Group

Print Add Delete Save Sort

Click **"ADD"** to add a new Group.

First select a County for the Group, EBASE will generate a Control Section table based on the County entered.

Select a Control Section number that applies to the area where the work is to be performed. When a Control Section is selected the State Route Number and Tax Rate fields will automatically be completed. [Control Sections are sorted by State Route then MP]

Assign a Fund to the Group.

Enter a Group description, that is descriptive of the type of work being performed and / or the location of the work.

Select Program and enter a Program Item Number.

Use the "Move Group" button to re-position a Group in the sequence. (i.e. move group 5 to group 3... group 5 becomes group 3, group 3 becomes group 4, and group 4 becomes group 5).

All Groups must be assigned to a Column.

Maximum allowed number of Groups in an estimate is: **99**

RESOURCES:

CONTROL SECTIONS -

<http://www.wsdot.wa.gov/mapsdata/roadway/statehighwaylog.htm>

PROGRAM ITEM NUMBER -

Contact Region Program Management

Columns Tab

Column Number	Group Number	Column Heading
1	1	SULLIVAN 38+83 TO 51+21
2	1	SULLIVAN NORTH SIGNAL SYSTEM 4
3	2	PINES SOUTH SIGNAL SYSTEM 1
4	3	SULLIVAN SOUTH SIGNAL SYSTEM 2
5	4	SULLIVAN MISSION SIGNAL SYSTEM 3

PLEASE NOTE: Column Headings are limited to 10 characters per line!

Move Column

Print Add Delete Save Sort

A Minimum of one Column must be created for each Group.

Additional Columns may be created for a Group with multiple Bridges and Walls to distinguish the item quantities in each. Pit Sites must have a Column of their own as well.

An exception to creating one Column for each structure would be in small projects with a single br. or wall. These small amount item quantities could be combined with another column if the quantities have been clearly tabulated in the plans.

Paving across multiple bridges would be another exception. These quantities could be combined with the mainline paving.

Use the "Move Column" button to revise the sequence of the Columns. All Group and Bid Item ties to the column will remain intact.

Never leave Columns in your estimate that have no bid items assigned to them, doing so may cause unexpected errors in the estimate reports.

Maximum allowed number of Columns
in an estimate is: 99

RESOURCES:

Column Break Rules –
Plans Preparation Manual
See Section 400.06(5)b

Bid Items Tab

- **Add Item Button** - Used to add one Standard or Non-Standard item at a time.
- **Standard Items Button** -Used to select and import multiple Standard Items from the Standard Item Table.
- **Non-Standard Item** - Has not been implemented.
- **Re-Set Item Nums** - Resets the item number to it's current position in the list.
- **UBA History Data** - Returns Low Bid history for the item currently selected.
- **Specifications** - Displays Item Requirements and GSP/Amendment information for the selected item.
- **Item Comments** - Provides a note box to enter special condition comments for the selected bid item.
- **Sort** - Sorts the listed items by their assigned Item Number.
- **Move Item** - Allows for an item to be moved to a new position in the list.
- **Spreadsheet** - opens a spreadsheet view of the bid items.
- **Item Report** - Generates the Preliminary Estimate Item Report.

Button Panel

Items

Item Number	Std Item Num
1	0001
2	0150
3	0310
4	
5	4013
6	7725
7	
8	

Column Number: 3 Planned Quantity: 5,000.00

Section Header: 8 STRUCTURE Prorate Item: ☐

Standard Item: 4013 SHORING OR EXTRA EXCAVATION CL. A

Non-Standard Item:

Add On Description: (ADD'L DESCRIPTION)

Unit Price: 1.0000 Unit Measure: L.S. Prequal Code: I2

Buttons:

- Add Item
- Delete Item
- Add Column
- Delete Column
- Standard Items
- Sort
- Non-Standard Items
- Save
- Re-Set Item Nums
- Move Item
- UBA History Data
- Spreadsheet
- Specifications
- Item Report
- Lump Sum Breakout Items
- Item Comments (none)

Lump Sum Breakout Items

- **Lump Sum Breakout Items** button opens a worksheet that is used to calculate the total cost of the selected Lumpsum bid item.

Enter all elements/quantities/unit prices that comprise the L.S. bid item and EBASE will calculate a L.S. total.

Transfer this total to the Planned Quantity field on the Bid Item Tab for the bid item.

Lump Sum Break Out Items

Job: 006 Version: 1 Item: CULVERT

Standard Item Number	Planned Quantity	Unit Of Measure	Unit Price	Total Cost
	100.00	C.Y.	500.0000	\$50,000.00
Description: FOOTING CONCRETE (CULVERTS & WALLS)				
	1,000.00	C.Y.	10.0000	\$10,000.00
Description: STRUCTURE EXCAVATION				
	200.00	TON	35.0000	\$7,000.00
Description: STREAMBED SEDIMENT				
Lump Sum Break Out Items Total:				\$67,000.00

Print Sort Add Delete Save Save As Close

Bid Items Tab

Continued

The Mobilization Lump Sum (L.S.) bid item cost may be Prorated across multiple columns of work.

To prorate this item:

Add all the columns in which you must include the item, Click the "Prorate Item" box, Enter the amount that will be prorated in the "Prorate Amount" field.

If the item was first created as a non prorated L.S. item, Make sure that all the "Planned Quantity" fields are zero'd out before checking the "Prorate Item" box.

Items

Item Number	Std Item Num
1	0001
2	0150
3	0310
4	
5	4013
6	7725
7	
8	

Column Number

1
2
4
5

Section Header: 1 PREPARATION

Standard Item: 0001 MOBILIZATION

Non-Standard Item:

Prorate Item: ☒

Prorate Amount: 1.0000 Unit Measure: L.S. Prequal Code: A1

NOTES:

Non-Standard Items - Do not enter a Non-Standard item #. Enter the Non-Standard description in the "Description" field. (as shown in the example for fig.1) Remember, when entering a non-standard item, to also enter:

- Section Header Number,
- Unit of measure
- Pre-qual Code.

Deleting Items for Addendum -

Do not delete the bid item, change the Standard Item # to "7800",
In the Planned Quantity field enter ".01" and
In the Unit Price field enter "0001".

L.S., CALC., EST. - All bid items with these units of measure Must have the Unit Price entered as 1.00 and the dollar amount entered in the Planned Quantity field (Exception L.S. items that have been Prorated)

Section Header Tab

Section Headers

All Standard and most Non-Standard Bid Items will be assigned to the list of std. Section Headers.

For Standard Bid Items, the Section Header has been pre -determined and is imported when the Standard Item is entered.

For Non-Standard items the Section Header must be selected from the menu in the Item details area of the Bid Items tab.

If a Section Header was not previously imported with a Standard item, it may not be in the active list.

Sect No.	Section Description	Alt Code
11	BITUMINOUS SURFACE TREATMENT	
12	ASPHALT TREATED BASE	
13	CEMENT CONCRETE PAVEMENT	
14	HOT MIX ASPHALT	
15	SEAL COAT	
16	IRRIGATION AND WATER DISTRIBUTION	
17	EROSION CNTL AND ROADSIDE RESTORATION	
18	TRAFFIC	
19	OTHER ITEMS	
20	BUILDING	
25	On Hold Items	
29	SUPERSTRUCTURE	
30	OBSOLETE ITEMS HIDEOUT	
31	ALTERNATE A1	A1
32	ALTERNATE A2	A2

☐ Accumulate Alternates
 ☐ Include Road User Cost

Print Add Delete Save Sort

- 1 Preparation
- 2 Grading
- 3 Stockpiling
- 4 Draining
- 5 Storm Sewer
- 6 Sanitary Sewer
- 7 Water Lines
- 8 Structure
- 9 Surfacing
- 10 Liquid Asphalt
- 11 Bituminous Surface Treatment
- 12 Asphalt Treated Base
- 12 Cement Concrete Pavement
- 14 Asphalt Concrete Pavement
- 15 NOT USED
- 16 Irrigation and Water Distribution
- 17 Erosion Control and Planting
- 18 Traffic
- 19 Other Items
- 20 Building
- 21-28 RESERVED
- 29 Superstructure
- 31-49 Use these for Alternates or Special
- 50 Use for Road User Cost (A+B bidding)

To add a Section Header, click the "Add" button enter a "Sect. No." and select a Section Description from the menu.

For some specialty contracts you may need to add a Non-Standard Section Header, Follow the same procedure as above, but use a Sect. No. in the 40's range and manually type the Section Description.

Alternates follow the procedure above, plus enter the appropriate "Alt Code". If the Alternates are accumulative i.e A1 + A2, also check the "Accumulate Alternates" box. (See the EBASE Users Guide for a detailed explanation of Alternates.) Use a Sect. No. in the 30's range.

Road User Cost (a+b bidding) is set up just like alternates except the Sect. No. to use is 50 and above, and the Alt Code is entered as R1, R2 etc. The Road User Cost box must be checked before EBASE will include items assigned to this type of Section Header. (See the EBASE Users Guide for a detailed explanation of Road User Cost.)

Non-Bid Items Tab

Non-bid items are those items of work or materials furnished, that are charged to the cost of the project, but not performed or bid on by the contractor.

Number	Column	Item Description	Unit Price
700	1	700 MOTORIST ASSISTANCE PATROL (WSP) T-9031	1,500.0000
701	1	701 ELECTRICAL SERVICE AGREEMENT SCD-2252	350.0000
702	3	702 SERVICE AGREEMENT SCX2643	10,000.0000
801	3	STATE SUPPLIED SIGNAL SYSTEM COMPONENTS	4,000.0000
802	4	STATE SUPPLIED SIGNAL SYSTEM COMPONENTS	4,000.0000
860	6	BRIDGE RAILING PROCUREMENT	30,000.0000
Total:			\$49,850.00

Numbers **700 thru 799** range are to be used for work to be performed by others such as Utility agreement work and work by State forces other than the DOT.

(These items will have Construction engineering and contingencies applied to them, but no sales tax).

Numbers **800 thru 899** range are to be used for State Force Work or State Furnished Materials.

(These items will have no sales tax, construction engineering or contingencies applied to them).

Keep in mind that **800 thru 859** are for Fed aid items, and **860 thru 899** are non-fed participating items. [feds won't contribute \$\$\$]



Addendums

Adding Items to your Estimate by Addendum

To Add Items to an Estimate with an addendum they must be placed at the end of the list so they do not cause the items to be re-numbered on either the Proposal or the Summary of Quantities Reports.

Add Items exactly as you would a regular Bid Item, but be sure to place it at the bottom of the list by assigning an Item number greater than those in the existing list of Regular bid items.

When entering Non-Standard items by addenda, Select 19 – Other Items as the Section Header. Standard Items will come in with a pre-assigned Section Header, Change this to Section 19 – Other Items. (See NOTE for special addendum Section Headers)

Verify that the Addendum Items - Item number is sequenced greater the last regular Bid Item. (See NOTE for special addendum Section Headers)

Section Headers

Sect No.	Section Description	Alt Code
10	LIQUID ASPHALT	
11	BITUMINOUS SURFACE TREATMENT	
12	ASPHALT TREATED BASE	
13	CEMENT CONCRETE PAVEMENT	
14	HOT MIX ASPHALT	
15	SEAL COAT	
16	IRRIGATION AND WATER DISTRIBUTION	
17	EROSION CNTL AND ROADSIDE RESTORATION	
18	TRAFFIC	
19	OTHER ITEMS	
20	BUILDING	
21	ADDENDUM 1	
25	On Hold Items	
29	SUPERSTRUCTURE	
30	OBSOLETE ITEMS HIDEOUT	

☐ Accumulate Alternates ☐ Include Road User Cost

Print Add Delete Save Sort

NOTE:

If you have a need for special tracking of the addendums in a specific estimate, an addendum specific Section Header may be created to assign addendum items to.

When creating Section Headers for Special Addendum tracking, use Section numbers 21-24.

Items

Item Number	Std Item Num
1	0001
2	0040
3	0150
4	0310
5	6766
6	7725
7	
8	

Items in Regular Estimate

Items added By Addendum

Section Headers

Column Number	Planned Quantity
5	10.00

Section Header: 19 OTHER ITEMS

Standard Item: 0035 CLEARING AND GRU

Non-Standard Item:

Unit Price: 1.0000 Unit Measure

See that although Standard Bid Item 0035 would normally be included with the [1] – Preparation items, When added by addendum, it is assigned to [19] – Other Items and sequenced with an Item Number that places it at the bottom of the items list

ad·den·dum

/əˈdendəm/

noun

- an item of additional material, typically omissions, added at the end of a book or other publication.

synonyms: appendix, codicil, postscript, afterword, tailpiece, rider, coda, supplement, More

Trouble Shooting



Problem	Solution
Project title not appearing in footer of reports:	Check on the General Info tab, In the Title box, there must be text entered on the 4th line before the Project Title will be displayed.
Project Title appearing incomplete in footer of reports:	This is caused when the incorrect apostrophe is used in the Project title. Do not use (`) always use (')
Reports generated, but appear blank:	No printers attached, setup a printer to use.
Fund Report Missing Information:	Check the Groups tab, make sure all Groups are assigned to a Fund.
Database Error Screen pops up:	This is usually related to the Funds tab. Check the Funds sub tab and the Fund/Participant Matching subtab, make sure that all lines on these tabs are complete. If the error continues Close EBASE and log back in. If the error still persists contact your EBASE support person for further help.
Summary of Quantities Report, Item Missing or out of Order:	Go to the Bid Items tab, make sure that all your bids Items have the correct Section Heading.
EBASE opens to the wrong Region and/or Estimates you create are not Saved to your Region:	Login to EBASE, Close the broadcast message screen when it appears. When the Gray screen is displayed click on "FILE", "CHANGE REGION", select your Region and click "CLOSE". This will re-assign your Login ID to the Region you are currently logging in from.
DBPROCESS Error:	The Server that EBASE lives on has went down or your connection to it has been otherwise interrupted. Click on "FILE", "Re-Connect". >>> If you get the eternal hour glass while using or trying to log in to EBASE, the server has went down. If this has locked up your machine, ALT+CNTRL+DELETE to view the Task Manager, End the EBASE task and try again later.

Using the “Filter” Button



Using the Filter Function in EBASE to extract data is cumbersome due to the fact that it must actually be “Coded”.

Included here are some examples that should get you though in most cases.

EXAMPLE - PROJECT BY TITLE:
To find all projects that contained
“Seismic” in the title.

ENTER:

title like '%' + 'SEISMIC' + '%'

(This is case sensitive, words in the title must be exact).

FIND BY CONTRACT NUMBER:

ENTER:

contract number = '006801'

ADVANCED FILTERING

TO FIND A RANGE:

Example... To find a Planned Quantity range

`planned_quantity > 5,000 and planned_quantity < 10,000`

TO FILTER BY 2 SETS OF CRITERIA:

Example... To find a Planned Quantity + an Award Date on or after a specified date.

`(planned_quantity > 5,000 and planned_quantity < 10,000) and
award_date >= date(yyyy,mm,dd)` (enter your date in year, month, day)

TO FILTER BY 3 SETS OF CRITERIA:

`(region_code= '6') and (award_date >= date(yyyy,mm,dd)) and planned_quantity >=2`

Engineering Percentage Guide

Engineering Percentages

Preservation Project Cost Range table*								
Project Construction Cost	P-1		P-2		P-3			
	PA	PB	PC	PD	PE	PF	PG	PH
\$0 - \$250,000	20%	20%	24%	18%	18%	23%	14%	21%
\$250,000 - \$555,000	18%	18%	24%	16%	16%	20%	12%	18%
\$500,000 - \$1,000,000	16%	16%	22%	16%	12%	18%	10%	16%
\$1,000,000 - \$2,000,000	14%	14%	20%	14%	10%	16%	10%	16%
\$2,000,000 - \$5,000,000	12%	12%	20%	14%	8%	14%	8%	14%
\$5,000,000 - \$10,000,000	10%	10%	18%	14%	6%	14%	8%	14%
\$10,000,000	8%	8%	18%	14%	6%	14%	8%	14%

* Highlighted percentages indicate there was not enough projects for an accurate sample

Improvement Project Cost Range table*												
Project Construction Cost	I-1				I-2		I-3				I-4	
	IA	IB	IC	IQ	ID	IE	IF	IG	IH	II	IK	IL
\$0 - \$250,000	20%	18%	22%	22%	24%	22%	22%	20%	12%	12%	18%	22%
\$250,000 - \$555,000	23%	17%	22%	20%	22%	20%	20%	20%	12%	12%	18%	22%
\$500,000 - \$1,000,000	20%	16%	20%	20%	20%	18%	20%	18%	12%	12%	18%	22%
\$1,000,000 - \$2,000,000	17%	15%	20%	18%	18%	16%	18%	16%	12%	12%	18%	22%
\$2,000,000 - \$5,000,000	14%	14%	18%	16%	15%	14%	16%	14%	12%	12%	18%	22%
\$5,000,000 - \$10,000,000	13%	13%	16%	14%	13%	12%	14%	12%	12%	12%	18%	22%
\$10,000,000	10%	10%	14%	12%	10%	10%	14%	10%	12%	12%	18%	22%

* Highlighted percentages indicate there was not enough projects for an accurate sample

To use the following tables :

Once the Program and sub-programs have been identified, go appropriate table and find the dollar range that covers the total Construction cost (construction costs will include any below the line items that has Engineering applied to them, such as utility agreements and work by state forces other than WSDOT). Record the corresponding percentage in your estimate.

P

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Mobilization Percentage Guide By Project Base Cost

MOBILIZATION	
Project Amount	MOB Range
< \$100,000	8% - 12%
\$10,000 - \$250,000	6% - 10%
\$250,000 - \$500,000	6% - 9%
\$500,000 - \$1,000,000	5% - 9%
\$1,000,000 - \$2,000,000	6% - 9%
\$2,000,000 - \$5,000,000	7% - 9%
\$5,000,000 - \$10,000,000	8% - 10%
\$10,000,000 - \$20,000,000	8% - 11%
> \$20,000,000	7% - 10%

Projects with Multiple Programs

Example: **\$3,750,000** Total Construction project costs with:
\$2,225,000 under Preservation P1 paving (PA) and
\$1,525,000 under Improvement I2 collision reduction (ID)

Percentages From Tables

[P1 ~ PA = 12 %] [I2 ~ ID = 18 %]

$(2,225,000 \times .12) + (1,525,000 \times .18)$

3,750,000

= 14%

For Additional Information on engineering percentages, please see the EBASE users guide located [HERE](#)

For additional help with EBASE

[EBASE Web Page](#)

[EBASE on-line training](#)

Or Contact Tomi Hume-Pontius @



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